

# Assessment Report

## New Zealand Scholarship Technology 2023

### Performance standard 93601

#### General commentary

Many candidates explored a number of contexts in detail and then selected one. The exploration of all contexts and selection of those for further work form part of the technology process and should be included in the report.

Generally good photographic evidence was provided, with useful annotations particularly when explaining the complexities of the situation / problem.

Short video clips of the testing and functioning prototype (less than 30 seconds) increased the student's ability to communicate the effectiveness of their prototype (what it does and how it works).

Some candidates submitted poorly scanned work which was difficult to read. For example, faint handwritten text, sticky notes, blurry conceptual ideas, and random changes in scanned work orientation.

This year there was an increase in video links that did not function or were difficult to see in the text. They need to be in bold blue at the top of the related page, hosted on YouTube, or have a working QR code. If a video of the completed outcome is provided, the link should be on the first page of the report.

Successful candidates who worked on a group project submitted their contribution to the project as an individual report and clearly identified their part in the group process as their own work. For example, details of the complexities of how they resolved the tasks in their group, how they worked to strengths within the group, and unique complexities that arose as a result of group work.

Candidates who presented evidence that followed guidelines for competitions, shows, or other technology awards often had their practice constrained by the requirements of a specification that did not allow them the opportunity to demonstrate either scholarship or outstanding scholarship performance. To ensure authenticity, students must investigate and include considerations of the intended physical and social environment prior, during, and after development of the outcome.

Some candidates relied heavily on highlighted research, sticky notes, or pages of irrelevant material which did not indicate synthesis nor illustrate technological practice. Technological practice is not a theoretical exercise, all outcomes need to be tested in their intended environment to demonstrate their fitness for purpose in the broadest sense. Technological practice doesn't just refer to designing, trialling, and construction of an outcome. It is an iterative process involving problem solving and the candidate interacting with their stakeholders and reflecting on their intended environment to make decisions and address the issue.

Candidates who were not successful did not provide sufficient evidence in their report to reflect all three strands of the curriculum. These candidates' reports were also not fully legible and clear, did not use the recommended size 12 font, with images that were not functional and clear, or submitted more than 60 pages.

Some candidates submitted a mix of typed, hand written, and pictorial that that was often hard to read (upside down, out of focus, messy handwriting / scribbles, colour coded) that did not meet the specifications of a scholarship submission.

Where a candidate's practice was guided by the assessment criteria for specialist knowledge and skill achievement standards it often constrained their ability to undertake technological practice.

## **Report on performance standard**

Candidates who were awarded **Scholarship with Outstanding Performance** commonly:

- made astute justifications of their technological practice and its resulting outcomes developed from an authentic context
- were at or above New Zealand curriculum level 8 expectations for synthesis and integration of skills and knowledge
- articulated independent and informed critical thinking about both their technological practice and the resulting outcome
- responded to a highly relevant and authentic issue that had the potential for complexity and scope to support exploration and the production of a quality technological outcome
- made deliberate and discerning use of stakeholders throughout the process
- communicated an innovative outcome clearly, with high levels of creativity, elegance, and synthesis underpinned by highly developed technological practice
- managed their project independently which meant it evolved in a logical manner
- effectively used relevant prior knowledge from previous learning and incorporated all three curriculum strands and technological literacy
- thoroughly investigated and critically acknowledged relevant aspects of the social and physical environment, which informed decision making
- demonstrated a willingness to pursue new knowledge and learnings, incorporated these into their own practice, extrapolated relevant information, and applied it to their context
- justified in depth the technological practice they undertook and how the outcome addressed the challenges of the issue and fitness for purpose in its broadest sense
- critically reflected on focused and relevant functional modelling to ensure the outcome had the potential to be fit for purpose
- understood socio-cultural and historical contexts and made connections from these to their own practice
- explored suitability of materials, processes, and components based upon their performance properties to ensure fitness for purpose
- fully completed, implemented, or deployed a complex and authentic solution to an issue that demonstrated their ingenuity, optimisation, and fitness for purpose in the broadest sense.

Candidates who were awarded **Scholarship** commonly:

- selected and explored an authentic context which allowed them to investigate a genuine issue with real complexities
- demonstrated an ability to carry out on-going and in-depth analysis while undertaking their practice
- reflected upon the knowledge gained from technological modelling to ensure the outcome had the potential to be fit for purpose
- reflected on and analysed both their own practice and / or that of others
- synthesised in-depth knowledge and skills to ensure their technological outcome was fit for purpose
- developed a quality outcome and communicated this through clear photographs, diagrams, or working links (for example QR codes or YouTube videos) to demonstrate fitness for purpose in its intended physical and social environment
- informed their on-going technological practice routinely using the issue and brief
- demonstrated and developed organisational skills and ability to work around unforeseen circumstances or complexities arising from their functional modelling and technological practice
- concisely justified their practice using clear reasoning for actions undertaken as they related to the issue and wider context considerations
- demonstrated that they were adaptable and incorporated iterative processes
- obtained timely relevant stakeholder feedback and / or knowledge which is used to inform their practice.

Candidates who were **not awarded Scholarship** commonly:

- did not sufficiently explore a real issue or context, thus reducing their ability to carry out authentic technological practice
- submitted digital submissions that did not sufficiently scope out the complexity of the skills required early enough in the process, resulting in unresolved outcomes
- often over emphasized the process of brief development at the expense of developing and producing a prototype (ran out of time)
- presented a running commentary on what they did rather than explaining the purpose for their actions and justifying their technological practice
- had a predetermined context which hindered authentic and / or in-depth exploration of the issue
- demonstrated limited creativity and / or innovation even though they produced a quality outcome
- misinterpreted the complexities of the situation to solely those of a technical nature when producing the outcome (did not adequately cover the three strands)
- undertook technological practice or demonstrated technological knowledge that was below Level 8 of the New Zealand curriculum
- did not demonstrate sufficient understanding of the relevant socio-cultural-physical considerations of the context and the issue
- did not acquire relevant stakeholder feedback that was selected and essential to the outcome / context development
- did not adequately reflect on relevant information, knowledge, attitudes, and / or practices of others to actively inform the development of their own outcome

- included unnecessary and / or irrelevant research that was not applied or reflected upon in their practice
- presented insufficient or incoherent evidence that did not allow the examiner to adequately judge the technological practice being undertaken
- used structured reports with too much planning and development that limited the candidates in successfully completing their outcomes.